UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/682,024	07/11/2001	Noboru Kamijo	JP920000131US1	2679

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EXAMINER
LESPERANCE, JEAN E

ART UNIT	PAPER NUMBER
2674	

DATE MAILED: 04/24/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _11 July 2001_ .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-16_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-16_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _11 July 2001_ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claims 1-16 are presented for examination.

Drawings

This application, filed under former 37 CFR 1.60, lacks formal drawings. The

informal drawings filed in this application are acceptable for examination purposes.

When the application is allowed, applicant will be required to submit new formal

drawings. In unusual circumstances, the formal drawings from the abandoned parent

application may be transferred by the grant of a petition under 37 CFR 1.182.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-7 are rejected under 35 U.S.C. 103 (a) as being unpatentable over U.S.

Patent # 6,137,479 ("Olsen et al.") in view of U.S. Patent # 6,369,794 ("Sakurai et al.").

As for claim 1, Olsen et al. teach the computer processor Fig.1 (48)

corresponding to a display controller for controlling a display position of the pointer on

the display screen; a computer processor Fig.1 (48) processes the motion sensor

signals to control the position of the cursor on the display screen 26 corresponding to a

displacement detector for detecting a displacement; and a track ball 70 (FIG. 4B) is

mounted on the top of the watch and the track ball 70 is rotated to move the cursor on

the display screen 26 corresponding to a pointer moving device for moving the pointer

on the display screen based on the detected displacement. Accordingly, Olsen et al.

teach all the claimed limitations with the exception of providing the motion of the device

itself.

However, Sakurai et al. teach the user wearing a wristwatch-type PDA (Personal

Digital Assistance) swings his/her wrist from side to side, latest information is displayed

on a display screen of the PDA (column 23, lines 59-62) corresponding to displacement

or motion of the device itself. There is a motion detector to sense when a movement

occurs.

It would have been obvious to utilize the motion sensor as taught by Sakurai et

al. in the programmable computer pointing device disclosed by Olsen et al. because this

would allow the user to interact with the GUI without using other means.

As for claim 2, Sakurai et al teach motion detecting means for detecting a motion

of the operation indication outputting device caused by the user's action where the

output is the display screen outputting images (column 28, lines 11-13) corresponding

to the displacement detector comprising an image sensor, wherein an image sensed by

the image sensor is processed to obtain a displacement.

As for claim 3, Sakurai et al teach an motion detecting unit Fig.1 (101) where it is

including some hardware made of complementary metal-oxide semiconductor

corresponding to the image sensor comprising a complementary metal-oxide

semiconductor or a charge coupled device.

As for claim 4, Olsen et al. teach a data port Fig.1 (52) sends and receives data

using infrared or radio frequency signals the image sensor comprising an infrared

sensor.

As for claim 5, Sakurai et al. teach an operation determining unit includes a

storing unit which stores operation indications that each correspond to a type of the

user's action (abstract) an operator for activating the image sensor.

As for claim 6, Olsen et al. teach a computer mouse (wristwatch) housing

contains the components that perform the traditional computer mouse functions,

namely, moving the cursor and selecting items on the display screen the operator

further includes the function for directing a selection of an object pointed to by the

pointer or for the execution of predetermined processing defined for the object, whereby

the operator has a plurality of functions.

As for claim 7, Olsen et al. teach a mouse watch device Fig5 (54) corresponding

to the device is of a wristwatch type.

Claims 8-10 are rejected under 35 U.S.C. 103 (a) as being unpatentable over

U.S. Patent # 6,137,479 ("Olsen et al.") in view of U.S. Patent # 6,111,580 ("Kazama et

al.").

As for claim 8, Olsen et al. teach a display for displaying a screen Fig.5 (60); a

seat Fig.5 (82) corresponding to a case for supporting the display; a wristband Fig.5

(76) corresponding to an attached belt attached to the case. Accordingly, Olsen et al.

teach all the claimed limitations as recited in claim 8 with the exception of providing a touch sensor.

However, Kazama et al. teach the touch sensor Fig.15 (53) is attached to the watch or set at predetermined position near the watch (For example, pocket of the user's wear in which the watch is included) corresponding to a touch sensor mounted in the case.

It would have been obvious to utilize the touch sensor as taught by Kazama et al. in the programming computer pointing device disclosed by Olsen et al. because this would allow the user to input an indication signal by a simple action.

As for claim 9, Kazama et al. teach the touch sensor Fig.15 (53) is attached to the watch or set at predetermined position near the watch (For example, pocket of the user's wear in which the watch is included) and the touch sensor may be provided on both sides of the display.

As for claim 10, Olsen et al. teach a computer processor Fig.1 (48) processes the motion sensor signals to control the position of the cursor on the display screen 26 corresponding to displacement detection section for detecting a displacement of the display; and the motion encoder 24 detects rotation of the roller ball 42 and generates signals that indicate the direction and distance the roller ball 42 moves corresponding to pointer position changing device for changing a display position of a pointer based on the detected results, thereby moving the pointer displayed on the screen.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act

of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior

to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 11-16 are rejected under 35 U.S.C. 102 (e) as being unpatentable over

U.S. Patent 6,369,794 ("Sakurai et al.").

As for claim 11, Sakurai et al. teach display such as text on a liquid crystal

display panel is scrolled sideways or up and down by a number of pixels corresponding

to the calculated travel, or a cursor displayed on the display panel is moved sideways or

up and down by the number of pixels (column 1, lines 43-48) corresponding to a first

step of taking an image of a physical object facing the device continuously and

detecting a relative displacement between the taken object and the display and

a second step for changing a display position of the pointer displayed on the display

based on the detected displacement.

As for claim 12, Sakurai et al. teach he user action analyzing unit 103 acquires

time series data (acceleration curve) 1601 of acceleration levels shown in FIG. 16 from

the motion detecting unit 101 and calculates a mean value of a sequence of differential

values dv/dt that each represent the amount of change in acceleration level per unit of

time (column 14, lines 32-37) corresponding to calculating a motion vector at a certain

place in an image based on the movement of the image that was taken multiple times;

and a display such as text on a liquid crystal display panel is scrolled sideways or up

and down by a number of pixels corresponding to the calculated travel, or a cursor

displayed on the display panel is moved sideways or up and down by the number of

pixels (column 1, lines 43-48) corresponding to obtaining a relative displacement

between the object and the display based on the calculated motion vector.

As for claim 13, Sakurai et al. a display such as text on a liquid crystal display

panel is scrolled sideways or up and down by a number of pixels corresponding to the

calculated travel, or a cursor displayed on the display panel is moved sideways or up

and down by the number of pixels (column 1, lines 43-48) corresponding to moving the

device relative to the object, the relative displacement between the object and the

display is obtained by inverting a sign of the motion vector. By moving the device

sideways is like inverting the sign of the motion vector.

As for claim 14, Sakurai et al. teach the operation determining unit 104 compares

differential mean value D outputted from the user action analyzing unit 103 with a

predetermined value to judge whether the user's action belongs to low frequency of

slowly swinging the enclosure 303 or high frequency of tapping the enclosure 303

(column 14, lines 63-67) corresponding to generating a time-series moving pattern of a certain place based on a position of the certain place in a principal image and a position of a place corresponding to the certain place in a plurality of other images that were taken apart in time from the principal image and comparing the generated time-series moving pattern with a plurality of model patterns registered in advance to select a most approximate model pattern; a display such as text on a liquid crystal display panel is scrolled sideways or up and down by a number of pixels corresponding to the calculated travel, or a cursor displayed on the display panel is moved sideways or up and down by the number of pixels (column 1, lines 43-48) corresponding to the second step comprising the steps of changing a display position of the pointer based on a moving pattern that was defined for the selected model pattern.

As for claims 15 and 16, Sakurai et al. teach a display such as text on a liquid crystal display panel is scrolled sideways or up and down by a number of pixels corresponding to the calculated travel, or a cursor displayed on the display panel is moved sideways or up and down by the number of pixels (column 1, lines 43-48) corresponding to detecting displacement, changing display position and the steps of starting to detect a displacement of the device when a predetermined startup operation is performed by a user.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Lesperance whose telephone number is (703)

308-6413. The examiner can normally be reached on from Monday to Friday between

8:OOAM and 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Richard Hjerpe, can be reached on (703) 305-4709 .

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
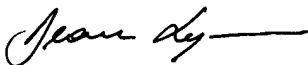
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal

drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the technology Center 2600 Customer Service Office

whose telephone number is (703) 306-0377.

Jean Lesperance

Date 4-18-2003

Art Unit 2674

RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600